

ABSTRACT

A non-impact keyless chuck suitable for use with manual or powered drivers is disclosed. The chuck comprises a body which carries a rotatable split nut having a relatively fine thread and a plurality of slidable jaws, which may be identical, driven by the rotatable nut. An anti-friction bearing is disposed between the rotatable nut and a bearing thrust ring mounted on the body. A clutch or torque limiting mechanism is provided to limit the tightening torque to a predetermined value while the loosening torque may be limited or unlimited. The front sleeve, and rear sleeve, if used, may be formed from a structural plastic to reduce manufacturing costs. A relatively soft elastomeric grip boot may be placed on the front sleeve to improve the grip and temporarily restrain and center the tool during chuck tightening or loosening operations. A relatively soft elastomeric grip boot may also be placed on the rear sleeve, if used.